

CLAIMS:

1. A communication method in a Code Division Multiple Access radio system using a transmission power control based on a Signal Interference Ratio measurement, the method comprising:

communicating between at least two transceivers of a radio system using a packet switched connection through a radio interface;

measuring a quality of the packet switched connection;

adjusting a target Signal Interference Ratio based on the quality measured;

transmitting, from a transceiver receiving packets, a request to retransmit at least one packet having a failed reception;

retransmitting, from a transceiver transmitting packets, at least one retransmission packet requested as a response to the request; and

controlling a transmission power by setting a lower target SIR for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet.

2. The method of claim 1, further comprising:

defining a specific target Signal Interference Ratio for at least one retransmission of the retransmission packet.

3. The method of claim 1, further comprising:

setting a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during transmissions of the packets.

4. The method of claim 1, further comprising:

transmitting, from the transceiver receiving packets, a transmission strength at which to retransmit the at least one packet having the failed reception.

5. The method of claim 1, further comprising:
setting the lower target Signal Interference Ratio according the algorithm:

$$\text{Target_SIR}(N^{\text{th}}) = \text{Target_SIR}(\text{master}) - \text{Step}(N^{\text{th}})[\text{dB}],$$

where $\text{Target_SIR}(N^{\text{th}})$ denotes the SIR of an N^{th} retransmission of a packet, $\text{Target_SIR}(\text{master})$ denotes the target SIR of the first transmission of a packet, $\text{Step}(N^{\text{th}})$ denotes an amount by which to decrease the transmission power of the retransmission, and N is an ordinal number denoting an index of retransmission.

6. A communication arrangement in a Code Division Multiple Access radio system using a transmission power control based on a Signal Interference Ratio measurement, the arrangement comprising:

at least two transceivers of the radio system for communicating with a packet switched connection through a radio interface;

a measuring mechanism for measuring a quality of the packet switched connection;

an adjusting mechanism for adjusting a target Signal Interference Ratio based on the quality measured:

a transceiver receiving packets for transmitting a request to retransmit when there is a failure to receive at least one packet;

a transceiver transmitting packets for retransmitting at least one retransmission packet requested as a response to the request; and

a controller for setting a lower target Signal Interference Ratio for retransmission of a packet than the target Signal Interference Ratio for a first transmission of the corresponding packet.

7. The arrangement of claim 6, wherein the arrangement is configured to define a specific target Signal Interference Ratio for at least one retransmission of the retransmission packet.

8. The arrangement of claim 6, wherein the controller is configured to set a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during the transmission of the packets.

9. The arrangement of claim 6, wherein the transceiver receiving the packets is configured to transmit a transmission strength at which to retransmit at least the one packet having a failed reception.

10. The arrangement of claim 6, wherein the controller is configured to set the lower target Signal Interference Ratio according to the algorithm:

$$\text{Target_SIR}(N^{\text{th}}) = \text{Target_SIR}(\text{master}) - \text{Step}(N^{\text{th}})[\text{dB}],$$

where $\text{Target_SIR}(N^{\text{th}})$ denotes the SIR of an N^{th} retransmission of a packet, $\text{Target_SIR}(\text{master})$ denotes the target SIR of the first transmission of a packet, $\text{Step}(N^{\text{th}})$ denotes an amount by which to decrease the transmission power of the retransmission, and N is an ordinal number denoting an index of retransmission.

11. A communication arrangement in a Code Division Multiple Access radio system using a transmission power control based on a Signal Interference Ratio measurement, the arrangement comprising:

communicating means for communicating between at least two transceivers of a radio system using a packet switched connection through a radio interface;

measuring means for measuring a quality of the packet switched connection;

adjusting means for adjusting a target Signal Interference Ratio based on the quality measured;

transmitting means for transmitting, from a transceiver receiving packets, a request to retransmit at least one packet having a failed reception; retransmitting means for retransmitting, from a transceiver transmitting packets, at least one retransmission packet requested as a response to the request; and

controlling means for controlling a transmission power by setting a lower target Signal Interference Ratio for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet.